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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,048	02/20/2002	Rasoul Mirzazadeh Oskouy		4428
44987	7590	11/17/2005		EXAMINER HSU, ALPUS
HARRITY & SNYDER, LLP 11240 WAPLES MILL ROAD SUITE 300 FAIRFAX, VA 22030			ART UNIT 2665	PAPER NUMBER

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/081,048	OSKOUY ET AL.	
	Examiner	Art Unit	
	Alpus H. Hsu	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 07 September 2005.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 39-72 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 39-72 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

1. Applicant's arguments with respect to claims 39-72 have been considered but are moot in view of the new ground(s) of rejection.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "150" has been used to designate both "INPUT SECTION" as in FIG. 2B and "MULTI-FUNCTION MULTIPORT" as in FIG. 3B. Furthermore, FIG. 3C should be labeled as "270" instead of "Bi" since it is directed to the INPUT SECTION".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. Claims 39-64, and 72 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The input interface (300), all elements in packing queue (380), and all elements in in-line packet processing device (386) are critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

To be more specific, it is not fully disclosed as to how an apparatus comprising a first input queue, first in-line packet processor and a first memory as in claim 39, or a device comprising an input queue, a header processor as in claim 49, or a device comprising an input

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queue, a header processor, and a buffer manager as in claims 53 and 59, can work alone to be operational without other essential elements within each element of packing queue (380), and in-line packet processing device (386).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 39, 40, 41, 45-50, 53, 54, 57-60, 63-68 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over MUNTER et al. in U.S. Patent No. 5,126,999 (of record) in view of MORRISSEY et al. in U.S. Patent No. 5,463,762 (newly cited).

Regarding claims 39, 41, 48, 49, 50, 53, 54, 57-60, 63 and 64, MUNTER et al. discloses an apparatus or a device for processing packets, comprising: a first input queue (ELASTIC BUFFER) configured to receive a stream of incoming packets and divide each packet into header portion and payload portion and to output both header portions and payload portions; a first in-line packet processor (41 and 43) for receiving the header portions from the first input queue,

each beginning portion including first header information, and for detecting the existence of an error in the first header information of each beginning portion; and a first memory (40) for storing packets received at the first input queue and for which the first in-line packet processor did not detect an error in the corresponding first header information.

MUNTER et al. differs from the claims, it does not disclose the feature of forwarding beginning portion of packets to in-line packet processor without waiting for the entire packet to be received, which is well known in the art and commonly used in communications field for instantaneous packet processing.

MORRISSEY et al., for example, from the similar field of endeavor, teaches the instantaneous packet processing by forwarding header portion of packets to in-line packet processor without waiting for the entire packet to be received (col. 5, line 44 to col. 6, line 18, col. 20, lines 41-57, col. 21, line 44 to col. 22, line 34), which can be easily adopted by one of ordinary skill in the art to implement into the system of MUNTER et al. to further improve the system reliability and efficiency.

Regarding claims 45-47, MUNTER et al. discloses a second input queue (31N) configured to receive a stream of incoming packets and to output beginning portions of packets as the beginning portions are received without waiting for the respective packets to be received in their entirety; and a second in-line packet processor (41 and 43) for receiving the beginning portions from the second input queue, each beginning portion including first header information, and for detecting the existence of an error in the first header information of each beginning portion.

Regarding claims 65, 66 and 71, MUNTER discloses a method of processing a packet, comprising: receiving portions of a packet in a stream ; dividing the received packet into header portion and payload portion and transmitting both to packet processor, and detecting the existence of an error in the header portion; and dropping the packet upon existence of an error in the packet (col. 5, line 55 to col. 6, line 6).

MUNTER et al. differs from the claims, it does not disclose the feature of forwarding beginning portion of packets to in-line packet processor without waiting for the entire packet to be received, which is well known in the art and commonly used in communications field for instantaneous packet processing.

MORRISSEY et al., for example, from the similar field of endeavor, teaches the instantaneous packet processing by forwarding header portion of packets to in-line packet processor without waiting for the entire packet to be received (col. 5, line 44 to col. 6, line 18, col. 20, lines 41-57, col. 21, line 44 to col. 22, line 34), which can be easily adopted by one of ordinary skill in the art to implement into the method of MUNTER et al. to further improve the system reliability and efficiency.

Regarding claims 40, 67 and 68, MUNTER does not disclose that the errors that the first in-line packet processor detects include at least one of unrecognized header format, failure to match a header pattern, incorrect checksum, or incorrect packet length, which are well known error detection schemes and commonly used in error detection/correction field, which is well within the level of ordinary skill in the art to adopt into the system and method in MUNTER et al. to provide the specific error detection/correction mechanism as per user requirements.

7. Claims 42-44, 51, 52, 55, 56, 61, 62, 69, 70 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over MUNTER et al. in U.S. Patent No. 5,126,999 (of record) in view of MORRISSEY et al. in U.S. Patent No. 5,463,762 (newly cited), and further in view of SUZUKI in U.S. patent No. 4,799,215 (of record).

Regarding claims 42-44, 51, 52, 55, 56, 61, 62, 69 and 70, the apparatus, device and method provided by MUNTER et al. in view of MORRISSEY et al. differs from the claims, it does not disclose includes a first and second header information, where the first header information comprises link layer header information and the second header information comprises network layer header information, which is also well known in the art and commonly used in communications field for providing higher level data link control and error recovery retransmission control on a link-by-link basis throughout the network.

SUZUKI, for example, from the similar field of endeavor, teaches the use of two headers, with a first and second header information, where the first header information comprises link layer header information and the second header information comprises network layer header information (col. 4, lines 56-66 and figure 3), which can be easily adopted by one of ordinary skill in the art into the system and method in MUNTER et al. in view of MORRISSEY et al. to provide higher level data link control and error recovery retransmission control on a link-by-link basis throughout the network to further improve the system reliability and efficiency.

Regarding claim 72, SUZUKI also disclose a plurality of output line interfaces (52) configured to output respective streams of outgoing packets, a lookup processor (51) for determining an output line interface for each packet stored in the first memory based on second header information contained in the packet; and a controller (50) for facilitating transmission of

packets from the first memory to the respective output line interfaces determined by the lookup processor.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

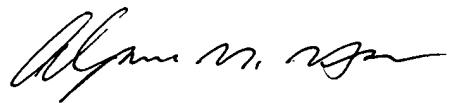
Dorsey et al., and Ward are additionally cited to show the common feature of packet forwarding in packet switching system utilizing input queue/buffer, packet processor, and memory similar to the claimed invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alpus H. Hsu whose telephone number is (571)272-3146. The examiner can normally be reached on M-F (5:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHH



Alpus H. Hsu
Primary Examiner
Art Unit 2665